

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 3 AND THE VILLAGE OF WAUGH CHAPEL - SOUTH ENTRANCE IN ANNE ARUNDEL COUNTY. MD 3 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA TWO-PHASE, FULL-TRAFFIC-ACTUATED MODE, WITH THE SOUTHBOUND MD 3 APPROACH AND THE NORTHBOUND MD 3 LEFT TURN MOVEMENT OPERATING SEPARATELY.

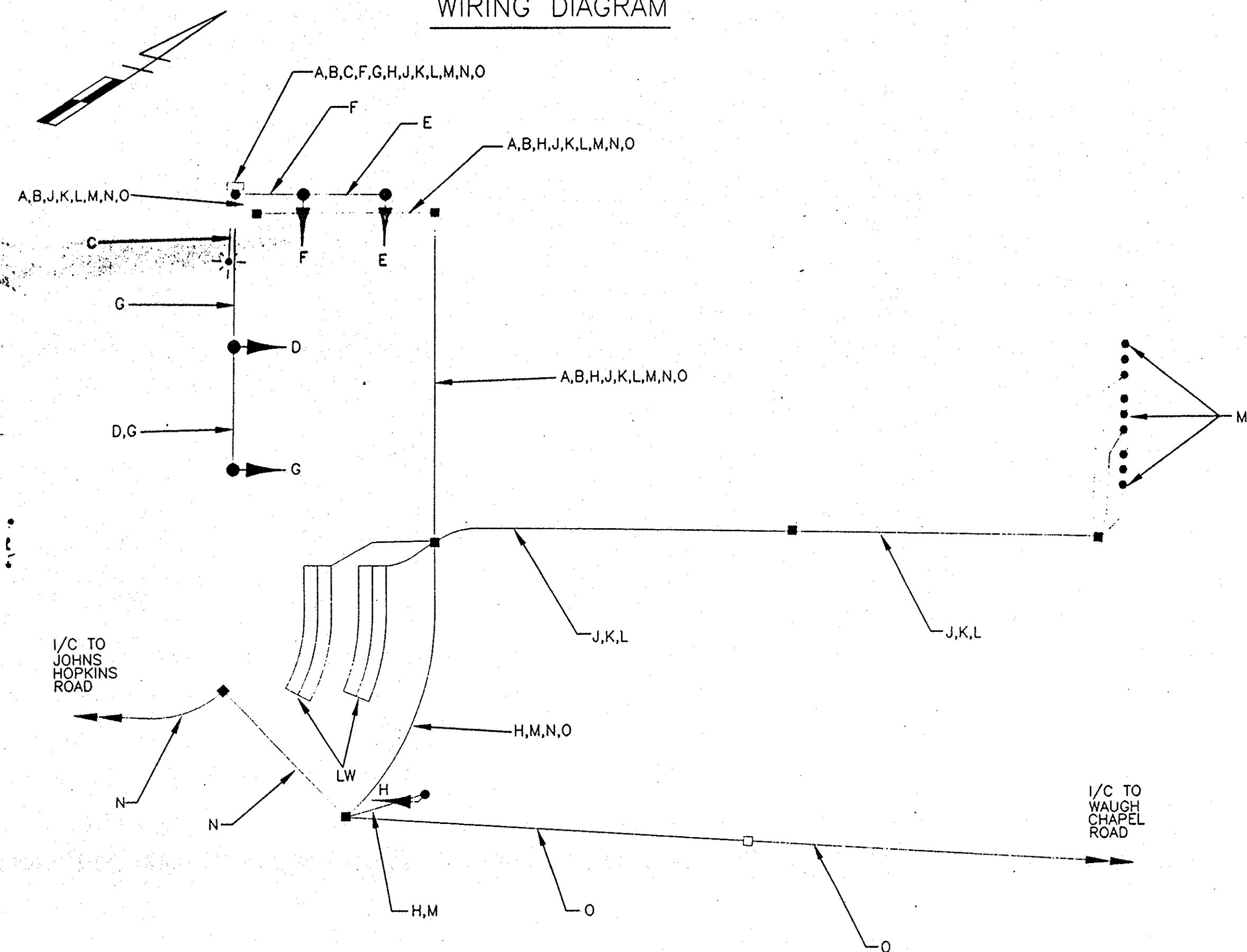
NORTHBOUND MD 3 THROUGH TRAFFIC IS NOT CONTROLLED BY THE SIGNAL.

THE INTERSECTION WILL BE INTERCONNECTED TO THE INTERSECTION OF MD 3 AND JOHNS HOPKINS ROAD AND TO MD 3 AND WAUGH CHAPEL ROAD.

CONTROLLER REQUIREMENTS

A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO FOUR-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS WILL BE HOUSED IN A POLE MOUNTED CABINET.

WIRING DIAGRAM



WIRING KEY

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|--|---|--|
| A } 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED) NO. 14 A.W.G. | F } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) | N } 12 PAIR VOICE GRADE INTERCONNECT CABLE |
| C } 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE | J } MICRO-LOOP PROBE LEAD-IN | ML } MICRO-LOOP PROBE |
| D } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) | M } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.) | LW } LOOP WIRE (NO. 14 A.W.G.) |

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	2 C.Y.	TEST PIT EXCAVATION
8001	6 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8003	1 EACH	FURNISH AND INSTALL 14 FT. BREAKAWAY PEDESTAL POLE
8017	3 EACH	FURNISH AND INSTALL MICRO-LOOP PROBE SET WITH 1000 FT. LEAD-IN
8021	320 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8023	40 L.F.	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8024	420 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8027	200 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8029	50 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
8030	80 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8032	110 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
8033	7 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	2 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8039	(SEE TS-1515K G)	FURNISH AND INSTALL 12 PAIR COMMUNICATION CABLE, JELLY-FILLED (UNDERGROUND)
8040	880 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8041	280 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 A.W.G.)
8044	50 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 A.W.G.)
8045	140 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 7 CONDUCTOR (NO. 14 A.W.G.)
8046	50 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (NO. 12 A.W.G.)
8049	220 L.F.	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
8052	72 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 6 IN.
8056	1 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
8057	1 EACH	FURNISH AND INSTALL LIGHTING BRACKET FOR TRAFFIC SIGNAL STRUCTURE -1 EACH - 15 FT. LENGTH

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
8064	1 EACH	USE EXISTING DISK AND AS-BUILT TRAFFIC CONTROL DEVICE
8070	1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
8085	1 EACH	FURNISH AND INSTALL MAST ARM POLE AND TWIN 50 FT/60 FT MAST ARMS
---	4 EACH	12 IN., ONE-WAY, THREE-SECTION (R.Y.G.) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
---	1 EACH	12 IN., ONE-WAY, THREE-SECTION (R.Y.G.A) OPTICALLY PROGRAMMED SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR PEDESTAL MOUNTING AND TUNNEL VISORS
---	1 EACH	FURNISH AND INSTALL R3-2 SIGN (30 IN. X 30 IN.) - MAST ARM MOUNT
---	1 EACH	FURNISH AND INSTALL R3-1 SIGN (30 IN. X 30 IN.) - MAST ARM MOUNT
---	2 EACH	FURNISH AND INSTALL W3-3 SIGN (48 IN. X 48 IN.) WITH "NEW PANEL" (30 IN. X 30 IN.) AND FLAGS - GROUND MOUNT
---	1 EACH	FURNISH AND INSTALL EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH TELEMETRY MODULE AND TWO-4-CHANNEL TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS HOUSED IN A POLE MOUNTED CABINET

PHASE CHART

	1	2	3	4	5
	(R)	(R)	(R)	(R)	(R)
	(Y)	(Y)	(Y)	(Y)	(Y)
	(G)	(G)	(G)	(G)	(G)
PHASE 1	R	R	G	G	G
1 CHANGE	R	R	Y	Y	Y
PHASE 2	G	G	R	R	R
2 CHANGE	Y	Y	R	R	R
FLASHING OPERATION	FL	FL	FL/R	FL	FL

TRAFFIC CONCEPTS, INC.

Brightview Business Center
8258 Veterans Highway
Suite 19B
Millersville, MD 21108
(410) 987-0427

REVISIONS	APPROVALS	REVISIONS
	ASSISTANT DIVISION CHIEF	
	ASST. DISTRICT ENGINEER, TRAFFIC	
	CHIEF, TRAFFIC ENGINEERING DESIGN DIV.	
	DIRECTOR, OFFICE OF TRAFFIC AND SAFETY	



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 3 AND VILLAGE OF WAUGH CHAPEL -
SOUTH ENTRANCE

DATE: 7-23-99	DRAWN BY: T. ZAYDEL	F.A.P. NO. BW996M82	PLAN SHEET NO.: TS-3895GI	SHEET NO. 2 OF 2
SCALE: NONE	DESIGNED BY: T. ZAYDEL	S.H.A. NO. ANNE ARUNDEL		
APPROVED BY: [Signature]	CHECKED BY: K. SCHMID	COUNTY: ANNE ARUNDEL		